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Human Resources Research

FINAL REPORT FOR YEARS
ONE AND TWO:
APPLIED RESEARCH ON PERFORMANCE
FEEDBACK AND APPRAISAL

Cynthia D. Fisher
Roseanne J. Foti
and
James B. Shaw

August 1987

TR-ONR-16

Texas A&M University
and
Virginia Polytechnic Institute

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) The objective of this project (contract N00014-85-k-0289) has been to provide developmental and basic research necessary to support the design, implementation, and evaluation of the new Marine Corps counseling, goal setting, and feedback system. Research was also conducted to aid the Marine Corps in the use and development of the Officer Fitness Report system. Research in each of these areas will be summarized separately. In both areas, recent advances in our understanding of rater cognitive processes and ratee self-assessment have been brought to bear in recommending state-of-the-art evaluation devices.		

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evaluator training, and counseling procedures.

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Final Report for Years One and Two:
Applied Research on Performance Feedback and Appraisal

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The objective of this project (contract N00014-85-K-0239) has been to provide developmental and basic research necessary to support the design, implementation, and evaluation of the new Marine Corps counseling, goal setting, and feedback system. Research was also conducted to aid the Marine Corps in the use and development of the Officer Fitness Report system. Research in each of these areas will be summarized separately below. In both areas, recent advances in our understanding of rater cognitive processes and ratee self-assessment have been brought to bear in recommending state-of-the-art evaluation devices, evaluator training, and counseling procedures.

Counseling System Related Research

We have worked with MMCE on the development of the new Marine Corps counseling system, both by providing informal advice as requested, and by preparing five technical reports relating to performance counseling. TR-ONR-8 is an extensive review of the literature on the performance appraisal interview, focusing on how feedback from the superior can be conveyed most effectively

to subordinates. TR-ONR-3 is a report of an empirical study of four methods of conveying feedback in a face-to-face appraisal interview. This research showed that participative methods are superior to a unilateral, top-down approach to giving feedback, and that the best participative method seems to involve subordinate self-ratings which are explicitly discussed in the appraisal interview. This method assures that the subordinate has thought about his or her performance and has become familiar with the rating instrument prior to the appraisal interview. It also assures that the superior is made aware of additional performance information or points of view which might otherwise have been over-looked.

We believe that self assessment is a crucial component of the performance appraisal process. Individuals have beliefs about their own performance level, and these beliefs must be recognized when a superior tries to give performance feedback. TR-ONR-4 is an extensive review and theoretical development of the process of the self assessment of performance. Numerous reasons are given for the oft-noted finding that self assessments disagree with superiors' assessments of performance. TR-ONR-14 provides an empirical look at self assessment. Subjects were found to be quite inaccurate when assessing their performance on a variety of tasks. The extent of inaccuracy was only weakly and occasionally related to several personality variables which had been hypothesized to affect the veracity of self assessments.

A final task in connection with the work for MMCE has been to evaluate the new performance counseling program. A pre-implementation survey of attitudes toward appraisal, role clarity, perceived frequency and adequacy of feedback, and so on was conducted in the spring of 1986. TR-ONR-7 is based on this data and explores some of the causes and consequences of superior/subordinate disagreement on performance ratings. The post-implementation survey was to have been conducted in the fall of 1986, but due to delays in implementation has had to be postponed. This task will be completed in the third year of the project.

Fitness Report Related Research

Our second major thrust has involved basic and applied research on performance ratings from the points of view of instrument design and other factors affecting rater accuracy. This work has been conducted in conjunction with MMPE, and in support of a proposed modification of the Officer Fitness Report system. Over the past three years, we have advised MMPE on rating scale format and dimensional content. It appears that major changes in the existing format are not feasible at this time, so our efforts have turned to developing auxiliary materials, such as rater training aids, to improve the quality of ratings made on the existing scales. TR-ONR-2 reviews the literature on rater training.

We are in the process of writing a report on proto-type anchors for the performance dimensions now in use. Used in a rater instruction manual, these anchors would clarify the meaning of each dimension and each performance level, thus aiding raters in using the scales consistently. The anchors are based on three waves of data collected from Marine Corps personnel. The first survey collected actual incidents of good, average, and poor behavior on each dimension. The second survey verified the classification of these incidents into performance dimensions, and the third survey scaled the items as to performance level. Supplementary analyses of these data will permit us to assess whether different performance schemata exist at different ranks. If such differences are found, they could account for some of the disagreement between superiors and subordinates in the evaluation of specific performances. TR-ONR-10 applied a similar procedure to the job of patrol officer in two law enforcement agencies. Differences in the performance schemata of officers and their superiors were found to exist in these samples.

Additional research has addressed other factors which may affect the accuracy of performance ratings made by superiors. TR-ONR-1 investigated the cognitive processes involved in perceiving, storing, and recalling performance data to make ratings. TR-ONR-5 addressed a methodological problem with much of the laboratory research on performance appraisal. TR-ONR-6 continued this line of research and showed that rating errors increased when raters had other tasks competing for their attention, a more realistic

scenario for actual ratings made in organizations. The authors concluded that it is crucial for raters to make a correct initial categorization of ratee performance, as their sensitivity to subsequent performance cues may be low. It is suggested that proto-type based frame-of-reference training might be the best method of improving rating accuracy by facilitating correct initial categorization. TR-ONR-13 reports the results of a study on rating accuracy when the superior is concurrently performing a stressful or non-stressful task. This study concluded that doing a stressful task may interfere with accurate ratings by inhibiting recall of subordinate behavior. Finally, TR-ONR-15 explored the cognitive and motivational bases of leniency error. Raters were found to be more lenient both when they knew that they would have to give face-to-face feedback on their rating (motivationally induced bias), and when ratings were made from memory (cognitively based bias). These results have implications for the design of rating systems for the purpose of reducing leniency error.

Other Research

TR-ONR-9 is a literature review on the subject of feelings of boredom in work and life. This topic first surfaced in 1981 when we were interviewing Marines at Camp Pendleton as part of a study of adjustment to an overseas unit rotation. Boredom both on and off duty was a common complaint, but one seldom addressed in the literature on management or industrial psychology. TR-ONR-9

reviews the existing literature, presents some qualitative data on the causes of boredom and the actions people take when they feel bored, and suggests directions for further research on boredom.

TR-ONR-11 and TR-CNR-12 are a diversion into the new research field of strategic human resource management. They assess the impact of variable such as establishment size, strategy, technology, and unionization on a variety of personnel management practices.

Further details on the fourteen technical reports released under contract N00014-85-K-0289 appear in Table 1.

Table 1
Technical Reports Issued During
Years One and Two
Contract #N00014-85-K-0239

- TR-ONR-1 Frank-Major, S.L., and Foti, R.J., (October, 1985).
Accuracy in Performance Appraisals: A Comparison
of Two Rater Cognitive Process Models.
ADA #A162-535.

Two different theories of the cognitive processes involved in rating performance were compared by Nathan and Lord in 1983. These theories comprised Borman's (1978) traditional model of dimensional schemata and Feldman's (1981) cognitive categorization theory. To further explore the role of each in the process of performance appraisal over time, participants in the present study were presented with two different videotapes of a lecturing college instructor. One half of the participants initially viewed a tape exhibiting primarily good lecture behaviors and two days later viewed a videotape containing mostly poor performance behaviors. The order of videotape presentation was manipulated so that the remaining participants viewed the tapes in reverse order. Subsequently, subjects appraised the lecturer's performance on a series of Likert rating scales and also completed a questionnaire examining their ability to recall specific performance behaviors. These measures revealed partial support for both theories. In general, the performance ratings lent support to the traditional model while cognitive categorization was corroborated in the recognition memory task.

- TR-ONR-2 DeGregorio, M.B. and Foti, R.J. (October, 1985).
A Review of Rater Training Approaches and
Effectiveness. ADA #162-706.

The literature on rater error reduction training is first reviewed and assessed. While rater halo and leniency error can sometimes be reduced by this type of training, rater accuracy may not be improved. Second, the literature on rater accuracy training is reviewed, and finally new training approaches based on rater cognitive processes are discussed.

- TR-ONR-3 DeGregorio, M.B., Fisher, C.D. and Fields, M. (October, 1985). Reactions to Varying Forms of Participation in the Appraisal Interview. ADA #A162-679.

In the laboratory, subordinate reactions to feedback given in four different ways were assessed. Method one was unilateral, top-down feedback. Method two was supervisory feedback with the subordinate encouraged to participate in the performance discussion. Methods three and four involved a self appraisal instrument completed prior to the participative performance discussion. In method three, the self appraisal did not figure in the discussion while in method four it was the heart of discussion. All participative methods tended to result in more positive subordinate perceptions than the unilateral method, but no one particular participative technique was consistently the best.

- TR-ONR-4 Fisher, C.D. and Russ, G. (June, 1986). Self and Superior Assessment. ADA #A173-763.

This theoretical paper begins by documenting the severity and pervasiveness of disagreements between superior and self assessments of work performance. To understand this disagreement, theoretical and applied work on self assessment is needed, similar to the work on superior cognitive processes in rating which has been occurring for several years. This paper draws on several theories to explain the self evaluation process and contrast it to the process used by superiors. A model of self evaluation, future research needs, and some suggestions for improving agreement are presented.

- TR-ONR-5 Foti, R.J. and Cohen, B.A. (October, 1986). Superior versus Observer: Enhancing the External Validity of Laboratory Performance Appraisal Studies.

This research evaluated differences in the psychometric quality of supervisor vs observer performance ratings. Specifically, type of rater (supervisor vs. observer) and type of instructions (ratings vs. neutral instructions) were manipulated in a 2 X 2 factorial design to compare the traditional laboratory performance appraisal approach with a more realistic experimental design. Results indicated

supervisors demonstrated more halo and leniency error in rating subordinates' behavior than did observers. Type of instructions given to the raters had no effect.

TR-ONR-6

Foti, R.J. and Hauenstein, N.M.A. (October, 1986).
The Effects of Increasing Information Processing
 Demands on Rating Outcomes.

This research investigated the cognitive processes which mediate the performance rating process. Specifically, level of processing and rater prior performance information were manipulated in a 3 X 3 factorial design in order to assess the impact on psychometric rating outcomes and rating accuracy. Results indicated that as information processing demands increased, raters relied more on the past performance cues. Specifically, raters using more automatic processing and receiving a good performance cue gave more lenient ratings, and those using automatic processing and receiving a poor performance cue exhibited increased halo. In addition, raters were least accurate in recognizing behaviors consistent with their performance cue. Implications for future research in performance appraisal are also discussed.

TR-ONR-7

Shaw, J.B. and Fisher, C.D. (December, 1986).
Supervisor-Subordinate Agreement on Performance
 Feedback: A Field Study.

Data on several hypothesized antecedents and consequences of subordinate agreement with the performance feedback received from their supervisors were collected from over 700 employees. It was predicted that subordinates who agreed with their superior would report that their superior had higher credibility and gave more frequent, positive, and clear feedback than subordinates who disagreed with their superior. High agreement was also hypothesized to result in higher effort to performance expectancies, lower levels of role conflict and ambiguity, higher satisfaction with the supervisor and job, greater intent to remain in the organization, and greater commitment to the organization than low agreement. All hypotheses were supported.

- TR-ONR-8 Biddle, T. and Fisher, C.D. (January, 1987). Performance Appraisal Interview: A Review of Research.

The research on performance appraisal interviews (PAI) is reviewed and critiqued. Factors affecting superior and subordinate reactions to the interview include (1) the structure of the PAI (purpose, frequency, source of appraisal, and rating format); (2) the content of the PAI (feedback sign, specificity, and performance attributions); (3) goal setting in the PAI; and (4) the process of the PAI (participation level and supervisor supportiveness). Suggestions for designing effective PAIs are given.

- TR-ONR-9 Fisher, C.D. (February, 1987). Boredom: Construct, Causes and Consequences.

The literature on causes of work and life boredom is reviewed. A qualitative study of causes of boredom on and off the job is presented, and a typology of causes is developed. Problems of measuring both experienced boredom and the boredom potential of situations are discussed, followed by suggestions for future research.

- TR-ONR-10 Foti, R.J. and Hauenstein, N.M.A. (May, 1987). Differences in Performance Schemata as a Function of Organizational Level.

The strategy of training raters to adopt the same evaluative standard has become a common practice in laboratory performance appraisal research. We felt that in the applied setting this "frame-of-reference" rater training strategy should be expanded to include the ratees' standards in order to clarify workers' understanding of organizational expectations. This study explored the necessary foundations for using this rater frame-of-reference training strategy. A modified behaviorally anchored scaling method was used to gather data in two law enforcement agencies. The goals of this study were to identify performance schemata for the position of patrol officer, and to assess how the schemata differed by organizational level (i.e., patrol officers versus their supervisors). Data were analyzed using repeated measures analyses of variance and discriminant analyses. Differences in performance schemata between organizational

levels were tentatively identified. Findings were discussed in relation to the needs of the two agencies and in terms of general implications for rater training strategies.

- TR-ONR-11 Fisher, C.D. and Shaw, J.B. (April, 1987). Does Business Strategy Affect Personnel Management Practices?

The effect of business strategy (defender versus analyzer and prospector) on a variety of human resource management practices was assessed. Hypotheses regarding selection, training, and compensation were supported. Those regarding job analysis, use of written HRM policies, promotion practices, and performance appraisal were not supported. Factors which may weaken the strategy-practice match were discussed extensively.

- TR-ONR-12 Fisher, C.D. and Shaw, J.B. (May, 1987). Determinants of Personnel Practices.

There has been relatively little research aimed at identifying the factors which are associated with the use of sophisticated and bureaucratic personnel management methods as opposed to casual and informal methods. Existing theory and research suggest that headquarters location, establishment size, technology, extent of unionization, and the existence of a designated personnel department may be among the causal factors. The relative impact of these factors on the sophistication of recruiting, selection, compensation and performance appraisal was assessed in a sample of 174 establishments.

- TR-ONR-13 Powell, A.B., Shaw, J.B. and Fisher, C.D. (May, 1987). The Effects of Rater Stress on Performance Rating Accuracy.

This study examined the effects of rater stress on halo error, severity error and rating accuracy in performance appraisal. Eighty-four participants completed either a stressful or nonstressful in-basket exercise, either before or after observing the videotaped performance of a manager. They then rated the manager on several performance dimensions. Ratings provided by participants completing the stressful in-basket were less accurate than those provided by participants completing the nonstressful in-basket. However, ratings provided

by these two groups showed no differences in halo or severity error. In addition, raters who completed the in-basket after seeing the target performance but before rating that performance provided less accurate ratings than those completing the in-basket before observing and rating the performance. These results indicate that rater stress may lead to greater appraisal inaccuracy, and that this inaccuracy is largely a function of faulty information retrieval.

- TR-CNR-14 Fisher, C.D. and Chachere, G. (May, 1987).
The Self-Assessment of Performance: Three Studies.

Possible determinants of the accuracy of self-ratings of performance are discussed. The relationships of past experience on the task, locus of control, and dispositional private and public self-focus to self-ratings are explored in two correlational studies using different tasks. Private self-focus sometimes results in less accurate self-rating, contrary to the hypothesis. A third study manipulates self-focus situationally but finds no effect on self-rating accuracy. Overall, it is concluded that the process of self-assessment is not well understood.

- TR-CNR-15 Hauenstein, Neil M.A., Whitcomb, Alan J., and Foti, Roseanne J. (August, 1987).
Effects of Future Interactions and Time Delays on Evaluator Leniency.

This study tested three potential explanations of evaluator leniency. The first explanation viewed leniency as a motivational bias affecting the recorded rating, but not the rater's actual impression. The second viewed leniency as a cognitive retrieval bias induced by demands upon memory. The final explanation viewed leniency as the interplay of motivational and cognitive processes causing an encoding bias which in turn resulted in lenient ratings. These three explanations were tested in a laboratory study in which raters provided both immediate and memory based ratings. Raters'

motivation was manipulated through a between subjects factor which varied expectations of providing face-to-face feedback to the ratee. Support was found for the motivational and cognitive retrieval biases, but contrary to expectations no support was found for the encoding bias explanation. Results were discussed in relation to advancing the understanding of the performance appraisal process through the incorporation of motivational factors.

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